County, Penn., out of seventy odd cases of goitre that he had examined, he had found only one among them that showed any of the usual symptoms of Graves' disease.

Dr. Booth, in closing, said the changes in the medulla to which Dr. Gordon had referred, were doubtless secondary, as are also similar changes found in other tissues of the body. Besides, no such changes are found in the earlier stages of the disease, while on the other hand there has been no death recorded without involvement of the thyroid gland.

The speaker said he had used the anti-thyroid serum in seven cases. One of these was cured, two were improved, and in the others no results had been noticed.

TOBACCO AS A CAUSE OF NERVOUS DISEASE—EXPERIMENTAL OBSERVATIONS.

By Dr. L. Pierce Clark.

1. It is fairly proven that tobacco is primarily a cardio-vascular poison.

2. Its acute toxic effects on the neuro-muscular apparatus are first as an excitant and mild convulsant; second, as a motor nerve depressant; and, finally, a paralyzant of the central and peripheral nerves of the heart and lungs.

3. Its chronic toxic effect on the nervous system (as yet so inaccurately studied), is to induce toxic congestion of the brain, spinal cord and peripheral nerves, inducing finally, in the latter, a mild type of degenerative neuritis.

4. The toxic coefficient, even in animals, under strict test, is so very variable as to vitiate many of the attempts to derive any definite conclusions of its effects on the nervous system in man.

CLINICAL OBSERVATIONS.

By Dr. B. Sachs.

In discussing this phase of the influence of tobacco on the nervous system, the speaker said the chief points which he hoped to establish were that tobacco did exert a most pernicious influence on the heart and the circulatory organs, and that it was a very important factor in the production of functional nervous disease, but that it did not play any sort of rôle in the causation of organic diseases of the nervous system, and that many of the disturbances of the nervous system were due, not to the direct influence of the tobacco upon it, but that the changes and morbid conditions were brought about indirectly through the effect that tobacco had upon the various parts of the circulatory system. Even the question as to which was the toxic element producing the harm done by smoking was not easily settled. Most of us would off-hand claim that it was due to nicotine, the alkaloid contained in the tobacco leaf, but Nessler had shown that Syrian tobacco, which was said to have a strong toxic effect, contained no nicotine whatever. Havana tobacco, the tobacco imported from Porto Rico, contained only 1.6 to 1.2 per cent. of nicotine, whereas some of the German tobacco, which was supposed to be as mild as any, contained 3.36 per cent.

In the causation of purely functional derangement, the excessive use of tobacco was unquestionably an important factor. In neurasthenia and hypochondriasis its influence was a powerful one, although Dr. Sachs said he believed that even here the deleterious effect of tobacco was brought about in an indirect way. He had not, in his experience, seen a single case of chronic psychosis which he could conscientiously attribute to tobacco and tobacco only. If we allowed that neurasthenia, with its accompanying symptoms of insomnia, tachycardia, gastro-intestinal disturbance and occasional fainting spells may be put down as being due to the excessive use of tobacco, we have brought the heaviest charge against the pernicious use of the weed. In closing, Dr. Sachs referred to the statement that had been made that the excessive smoker not infrequently became impotent.

Dr. Dercum said that almost invariably those who used tobacco were also addicted to the use of alcohol, and he did not think it was possible to differentiate the symptoms due to the use of one from those due to the use of the other. For example, vasomotor changes, which unquestionably resulted from the use of tobacco, also resulted from the use of alcohol. The same was true of amblyopia.

Personally, Dr. Dercum said he did not believe that tobacco did very much harm in the way it was used by a large majority of people; the harm arose when it was used to excess.

Dr. J. K. Mitchell said that he had had occasion to observe a great many employees in snuff factories—persons who lived in a perfect atmosphere of tobacco, much more so than in cigar factories, where there is more or less dampness, and among that class of workmen he never saw any nervous disorders or any form of neuritis that he could fairly attribute to tobacco poisoning.

In regard to the anaphrodisiac properties of tobacco, to which Dr. Sachs had referred, Dr. Mitchell said that there is at least an established belief that it is to that end sailors affect it during their absence from port.

Dr. Spiller said he had seen a number of cases of neurasthenia in young women who were employed in tobacco factories, but he had never been able to prove that they were tobacco smokers. They were, however, in the habit of biting off the ends of the tobacco, and moistening the ends of the leaf with their lips, and occasionally they swallowed pieces of tobacco.

Dr. W. W. Hawke referred to the occurrence of convulsive tic affecting usually the upper face among tobacco smokers. He also mentioned the observation of Professor Millet, of the University of Virginia, that cigarette smoking was harmless unless the smoke was inhaled.

Dr. G. E. Price said that in case of nervous disorders which were commonly attributed to the use of tobacco, the possibility of a neurotic predisposition or heredity should not be lost sight of.

Dr. Gordon said that tobacco, in its effect, apparently had a special predilection for the acoustic nerve, as was seen from the researches of Délie (Congrés Intern. d'Otologie, 1904). Its influence on the sexual function had long been known, and a number of such cases were reported by Ségrais, (*Arch. gén. de Méd.*, 1902). Experimental researches have demonstrated this depressant action of tobacco on the generative organs: atrophy and sclerosis of the testicles and ovaries were observed in chronic intoxication.

Dr. Gordon also referred to the experiments of Ballet and Faure in 1899, who had shown that subcutaneous injections of maceration of tobacco produced epileptiform convulsions, and the speaker said he could recall a case of epilepsy in his own practice where convulsions would follow the use of tobacco. The patient was an inveterate smoker. He was forbidden to chew or smoke: every time he would resume his old habit, the convulsive attacks would increase in frequency and intensity. Rénon, in 1905, reported an important case of intermittent claudication, at the autopsy of which was found a thrombosis of the abdominal aorta. The patient was neither alcoholic nor syphilitic, but used tobacco very excessively. The reporter compares tobacco to adrenalin, which is a vaso-constrictor, and both produce arterial hypertension. In arthritic individuals, who usually smoked excessively, it is not impossible that tobacco plays a role in the production of their arterial sclerosis. Erb observed this influence of tobacco in 38 cases out of 45 of intermittent claudication.

The President, Dr. Dana, referred to the deleterious effects of the inhalation habit among boys who had become addicted to the use of cigarettes.

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The President, Dr. Alfred Gordon, in the Chair.

A CASE OF ABSCESS OF THE BRAIN OF TUBERCULAR ORIGIN IN A BABOON.

By Dr. J. H. W. Rhein and Dr. Herbert Fox.

The following is a preliminary report upon a case of tuberculous abscess of the brain in a baboon, whose symptoms were studied three days before death. A future report will be made which will be in the nature of a comparative anatomical study. The brain, in large part, has been cut in serial sections, and, as the study of these sections is not quite complete, only a brief reference to the pathological anatomy will be made. The baboon appeared to be perfectly well until October 18, 1906, when some lameness in the upper and lower extremities on the right side was observed. This gradually increased, and was associated with twitching of the muscles of the left side. On November 30, 1906, Dr. Rhein examined him, and found the following condition. The right upper and lower extremities were weaker than those on the left side. The power in the left upper and lower extremities seemed to be fair. He was able to hold on to an iron bar with the fingers of the upper and lower extremities on the right side, but in withdrawing the bar it was not difficult to overcome his grasp, and the power on this side was distinctly less than that on the left. The movements of the right arm were somewhat ataxic, as observed when he made efforts to grasp the iron bar with which the examination was made. The knee jerks were increased on both sides, and appeared to be equally so. There was no evidence of facial palsy. He moved both sides of the face equally well at those times at which he expressed anger